conception of physics ought to be deducible from those of biology, since the latter are not reducible to the former. Thus, entropy, he suggests, would illustrate a special case of biological disorganization.

Hogben relies largely on sweeping statements such as the following: ' The whole development of physiology bears witness to the conclusion that the separated constituents of a living whole do not at any level of complexity behave differently from the way in which they behave as parts of a more complex order/ This statement, if it were true, would not establish the mechanical biology, as Hogben seems to suppose. It would still leave open the question, Which is the one type of behaviour to which they conform ? Is it the mechanical or the teleological ? But the statement is in flagrant opposition to the opinion of very many eminent biologists of the present time.

As we shall see on later pages, the most distinctive feature of contemporary theoretical biology is the very general recognition of the inadequacy of the purely mechanical theory and the many attempts to find some middle way between mechanism and vitalism; straight mechanism, unmitigated materialism of the kind defended by Hogben is almost as unpopular among biologists as straight dualism or vitalism; while such middle-way theories as may be grouped under the names *Organicism, Emergentim, Gestalt-theory> Holism, Totality-principle,* can claim many eminent supporters; and most of these are driven to adopt a mid-way theory, not by any ethical prejudices, or * introspective

philosophizing*, nor by any dislike of materialism as a creed, but by sheer pressure of the facts, the wealth of facts incompatible with Hogben's sweeping assertion about the whole history and tendency of physiology. Let us hear what one eminent biochemist,